RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _10/822,953_

Source: _1FWO_

Date Processed by STIC: _10/22/04_

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RAW SEQUENCE LISTING   DATE: 10/22/2004
PATENT APPLICATION: **US/10/822,953** TIME: 15:33:05

Input Set : **A:\Amsc33cn.app**
Output Set: **N:\CRF4\10222004\J822953.raw**

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 3 <110> APPLICANT: MURPHY, JOHN R.
 4        O'LEAR, EDWARD
 5        HARRISON, ROBERT J.
 7 <120> TITLE OF INVENTION: VACCINE COMPOSITIONS
 9 <130> FILE REFERENCE: AMSC 3.3-001 CONT
11 <140> CURRENT APPLICATION NUMBER: 10/822,953
12 <141> CURRENT FILING DATE: 2004-04-12
14 <150> PRIOR APPLICATION NUMBER: 09/868,753
15 <151> PRIOR FILING DATE: 2001-06-21
17 <150> PRIOR APPLICATION NUMBER: PCT/US00/29231
18 <151> PRIOR FILING DATE: 2000-10-23
20 <150> PRIOR APPLICATION NUMBER: 60/161,292
21 <151> PRIOR FILING DATE: 1999-10-25
23 <150> PRIOR APPLICATION NUMBER: 60/161,193
24 <151> PRIOR FILING DATE: 1999-10-22
26 <160> NUMBER OF SEQ ID NOS: 36
28 <170> SOFTWARE: PatentIn Ver. 3.2
30 <210> SEQ ID NO: 1
31 <211> LENGTH: 24
32 <212> TYPE: DNA
33 <213> ORGANISM: Artificial Sequence
35 <220> FEATURE:
36 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
38 <400> SEQUENCE: 1
39 accagatctg ccgaaaaact tcga                                        24
42 <210> SEQ ID NO: 2
43 <211> LENGTH: 25
44 <212> TYPE: DNA
45 <213> ORGANISM: Artificial Sequence
47 <220> FEATURE:
48 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
50 <400> SEQUENCE: 2
51 accagatctc cgcctttagt attta                                       25
54 <210> SEQ ID NO: 3
55 <211> LENGTH: 27
56 <212> TYPE: DNA
57 <213> ORGANISM: Unknown Organism
59 <220> FEATURE:
60 <223> OTHER INFORMATION: Description of Unknown Organism: Native tox
61        operator
63 <400> SEQUENCE: 3
64 ataattagga tagctttacc taattat                                     27
67 <210> SEQ ID NO: 4
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Input Set : **A:\Amsc33cn.app**
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 68 <211> LENGTH: 19
 69 <212> TYPE: DNA
 70 <213> ORGANISM: Unknown Organism
 72 <220> FEATURE:
 73 <223> OTHER INFORMATION: Description of Unknown Organism: Illustrative
 74       polynucleotide target site
 76 <400> SEQUENCE: 4
 77 gtaggttagg ctaacctat                                          19
 80 <210> SEQ ID NO: 5
 81 <211> LENGTH: 25
 82 <212> TYPE: DNA
 83 <213> ORGANISM: Artificial Sequence
 85 <220> FEATURE:
 86 <223> OTHER INFORMATION: Description of Artificial Sequence: Consensus-binding
 87       sequence
 89 <220> FEATURE:
 90 <221> NAME/KEY: modified_base
 91 <222> LOCATION: (2)
 92 <223> OTHER INFORMATION: a, t, c, g, unknown or other
 94 <220> FEATURE:
 95 <221> NAME/KEY: modified_base
 96 <222> LOCATION: (4)
 97 <223> OTHER INFORMATION: a, t, c, g, unknown or other
 99 <220> FEATURE:
100 <221> NAME/KEY: modified_base
101 <222> LOCATION: (10)
102 <223> OTHER INFORMATION: a, t, c, g, unknown or other
104 <220> FEATURE:
105 <221> NAME/KEY: modified_base
106 <222> LOCATION: (14)
107 <223> OTHER INFORMATION: a, t, c, g, unknown or other
109 <220> FEATURE:
110 <221> NAME/KEY: modified_base
111 <222> LOCATION: (18)..(19)
112 <223> OTHER INFORMATION: a, t, c, g, unknown or other
114 <220> FEATURE:
115 <221> NAME/KEY: modified_base
116 <222> LOCATION: (22)..(25)
117 <223> OTHER INFORMATION: a, t, c, g, unknown or other
119 <400> SEQUENCE: 5
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W--> **120 ananttaggn tagnctannc tnnnn   25**
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123 <210> SEQ ID NO: 6
124 <211> LENGTH: 19
125 <212> TYPE: DNA
126 <213> ORGANISM: Artificial Sequence
128 <220> FEATURE:
129 <223> OTHER INFORMATION: Description of Artificial Sequence: Illustrative
130       variant polynucleotide sequence
132 <400> SEQUENCE: 6
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/822,953

DATE: 10/22/2004
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Input Set : A:\Amsc33cn.app
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136 <210> SEQ ID NO: 7
137 <211> LENGTH: 230
138 <212> TYPE: PRT
139 <213> ORGANISM: Mycobacterium tuberculosis
141 <400> SEQUENCE: 7
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143   1               5                  10                  15
145 Asp Leu Glu Glu Glu Gly Val Thr Pro Leu Arg Ala Arg Ile Ala Glu
146              20                  25                  30
148 Arg Leu Asp Gln Ser Gly Pro Thr Val Ser Gln Thr Val Ser Arg Met
149          35                  40                  45
151 Glu Arg Asp Gly Leu Leu Arg Val Ala Gly Asp Arg His Leu Glu Leu
152      50                  55                  60
154 Thr Glu Lys Gly Arg Ala Leu Ala Ile Ala Val Met Arg Lys His Arg
155  65                  70                  75                  80
157 Leu Ala Glu Arg Leu Leu Val Asp Val Ile Gly Leu Pro Trp Glu Glu
158              85                  90                  95
160 Val His Ala Glu Ala Cys Arg Trp Glu His Val Asn Ser Glu Asp Val
161             100                 105                 110
163 Glu Arg Arg Leu Val Lys Val Leu Asn Asn Pro Thr Thr Ser Pro Phe
164         115                 120                 125
166 Gly Asn Pro Ile Pro Gly Leu Val Glu Leu Gly Val Gly Pro Glu Pro
167      130                 135                 140
169 Gly Ala Asp Asp Ala Asn Leu Val Arg Leu Thr Glu Leu Pro Ala Gly
170 145                 150                 155                 160
172 Ser Pro Val Ala Val Val Val Arg Gln Leu Thr Glu His Val Gln Gly
173             165                 170                 175
175 Asp Ile Asp Leu Ile Thr Arg Leu Lys Asp Ala Gly Val Val Pro Asn
176             180                 185                 190
178 Ala Arg Val Thr Val Glu Thr Thr Pro Gly Gly Gly Val Thr Ile Val
179         195                 200                 205
181 Ile Pro Gly His Glu Asn Val Thr Leu Pro His Glu Met Ala His Ala
182      210                 215                 220
184 Val Lys Val Glu Lys Val
185 225                 230
188 <210> SEQ ID NO: 8
189 <211> LENGTH: 223
190 <212> TYPE: PRT
191 <213> ORGANISM: Cornyebacterium diptheriae
193 <400> SEQUENCE: 8
194 Met Lys Asp Leu Val Asp Thr Thr Glu Met Tyr Leu Arg Thr Ile Tyr
195   1               5                  10                  15
197 Glu Leu Glu Glu Glu Gly Val Thr Pro Leu Arg Ala Arg Ile Ala Glu
198              20                  25                  30
200 Arg Leu Glu Gln Ser Gly Pro Thr Val Ser Gln Thr Val Ala Arg Met
201          35                  40                  45
203 Glu Arg Asp Gly Leu Val Val Val Ala Ser Asp Ser Leu Gln Met Thr
204      50                  55                  60
```

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Output Set: N:\CRF4\10222004\J822953.raw

```
206 Pro Thr Gly Arg Thr Leu Ala Thr Ala Val Met Arg Lys His Arg Leu
207  65              70              75              80
209 Ala Glu Arg Leu Leu Thr Asp Ile Ile Gly Leu Asp Ile Asn Lys Val
210              85              90              95
212 His Asp Glu Ala Cys Arg Trp Glu His Val Met Ser Asp Glu Val Glu
213             100             105             110
215 Arg Arg Leu Val Lys Val Lys Asp Val Ser Arg Ser Pro Phe Gly Asn
216         115             120             125
218 Pro Ile Pro Gly Leu Asp Glu Leu Gly Val Gly Asn Ser Asp Ala Ala
219     130             135             140
221 Ala Pro Gly Thr Arg Val Ile Asp Ala Ala Thr Ser Met Pro Arg Lys
222 145             150             155             160
224 Val Arg Ile Val Gln Ile Asn Glu Ile Phe Gln Val Glu Thr Asp Gln
225             165             170             175
227 Phe Gln Leu Leu Asp Ala Asp Ile Arg Val Gly Ser Glu Val Glu Ile
228             180             185             190
230 Val Asp Arg Asp Gly His Ile Thr Leu Ser His Asn Gly Lys Asp Val
231         195             200             205
233 Glu Leu Leu Asp Asp Leu Ala His Thr Ile Arg Ile Glu Glu Leu
234     210             215             220
```

237 <210> SEQ ID NO: 9
238 <211> LENGTH: 174
239 <212> TYPE: PRT
240 <213> ORGANISM: Staphylococcus epidermitis
242 <400> SEQUENCE: 9

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243 Met Thr Val Ser Cys Pro Pro Pro Ser Thr Ser Glu Arg Glu Glu Gln
244  1               5              10              15
246 Ala Arg Ala Leu Cys Leu Arg Leu Leu Thr Ala Arg Ser Arg Thr Arg
247              20              25              30
249 Ala Glu Leu Ala Gly Gln Leu Ala Lys Arg Gly Tyr Pro Glu Asp Ile
250             35              40              45
252 Gly Asn Arg Val Leu Asp Arg Leu Ala Ala Val Gly Leu Val Asp Asp
253     50              55              60
255 Thr Asp Phe Ala Glu Gln Trp Val Gln Ser Arg Arg Ala Asn Ala Ala
256  65              70              75              80
258 Lys Ser Lys Arg Ala Leu Ala Ala Glu Leu His Ala Lys Gly Val Asp
259             85              90              95
261 Asp Asp Val Ile Thr Thr Val Leu Gly Gly Ile Asp Ala Gly Ala Glu
262             100             105             110
264 Arg Gly Arg Ala Glu Lys Leu Val Arg Ala Arg Leu Arg Arg Glu Val
265         115             120             125
267 Leu Ile Asp Asp Gly Thr Asp Glu Ala Arg Val Ser Arg Arg Leu Val
268     130             135             140
270 Ala Met Leu Ala Arg Arg Gly Tyr Gly Gln Thr Leu Ala Cys Glu Val
271 145             150             155             160
273 Val Ile Ala Glu Leu Ala Ala Glu Arg Glu Arg Arg Arg Val
274             165             170
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277 <210> SEQ ID NO: 10
278 <211> LENGTH: 225

279 <212> TYPE: PRT
280 <213> ORGANISM: Mycobacterium leprae
282 <400> SEQUENCE: 10
283 Met Asn Asp Leu Val Asp Thr Thr Glu Met Tyr Leu Arg Thr Ile Tyr
284   1   5   10   15
286 Asp Leu Glu Glu Glu Gly Ile Val Thr Pro Leu Arg Ala Arg Ile Ala
287   20   25   30
289 Glu Arg Pro Thr Val Ser Gln Thr Val Ser Arg Met Glu Arg Asp Gly
290   35   40   45
292 Leu Leu Arg Val Ala Gly Asn Arg His Leu Glu Leu Thr Thr Lys Gly
293   50   55   60
295 Arg Ala Met Ala Ile Ala Val Met Arg Lys His Arg Leu Ala Glu Arg
296   65   70   75   80
298 Leu Leu Val Asp Val Ile Gly Leu Pro Trp Glu Glu Val His Ala Glu
299   85   90   95
301 Ala Cys Arg Trp Glu His Val Met Ser Glu Asp Val Glu Arg Arg Leu
302   100   105   110
304 Ile Lys Val Leu Asn Asn Pro Thr Thr Ser Pro Phe Gly Asn Pro Ile
305   115   120   125
307 Pro Gly Leu Leu Asp Leu Gly Ala Gly Pro Asp Ala Ser Ala Ala Asn
308   130   135   140
310 Ala Lys Leu Val Arg Leu Thr Glu Leu Pro Ser Gly Ser Pro Val Ala
311 145   150   155   160
313 Val Val Val Arg Gln Leu Thr Glu His Val Asp Asp Ile Asp Leu Ile
314   165   170   175
316 Thr Arg Leu Lys Asp Thr Gly Val Val Pro Asn Ala Arg Val Thr Val
317   180   185   190
319 Glu Thr Ser Pro Ala Gly Asn Val Ile Ile Ile Pro Gly His Glu
320   195   200   205
322 Asn Val Thr Leu Pro His Glu Met Ala His Ala Val Lys Val Glu Lys
323   210   215   220
325 Val
326 225
329 <210> SEQ ID NO: 11
330 <211> LENGTH: 230
331 <212> TYPE: PRT
332 <213> ORGANISM: Mycobacterium tuberculosis
334 <400> SEQUENCE: 11
335 Met Asn Glu Leu Val Asp Thr Thr Glu Met Tyr Leu Arg Thr Ile Tyr
336   1   5   10   15
338 Asp Leu Glu Glu Glu Gly Val Thr Pro Leu Arg Ala Arg Ile Ala Glu
339   20   25   30
341 Arg Leu Asp Gln Ser Gly Pro Thr Val Ser Gln Thr Val Ser Arg Met
342   35   40   45
344 Glu Arg Asp Gly Leu Leu Arg Val Ala Gly Asp Arg His Leu Glu Leu
345   50   55   60
347 Thr Glu Lys Gly Arg Ala Leu Ala Ile Ala Val Met Arg Lys His Arg
348   65   70   75   80
350 Leu Ala Glu Arg Leu Leu Val Asp Val Ile Gly Leu Pro Trp Glu Glu

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 10/22/2004
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Input Set : A:\Amsc33cn.app
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Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:5; N Pos. 2,4,10,14,18,19,22,23,24,25

VERIFICATION SUMMARY   DATE: 10/22/2004
PATENT APPLICATION: **US/10/822,953**   TIME: 15:33:06

Input Set : **A:\Amsc33cn.app**
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L:120 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0